

ABSTRACT

A boundary acoustic wave device using a Stoneley wave is provided which has a large electromechanical coefficient, a small propagation loss, a small power flow angle, and a temperature coefficient of frequency TCF in an appropriate range, and which can be formed by a simple method because of its simple structure.

A dielectric substance 3 is laminated on one surface of a piezoelectric substance 2, and an IDT 4 and reflectors 5 and 6 are disposed as electrodes at a boundary between the piezoelectric substance 2 and the dielectric substance 3, and the thickness of the electrodes is determined so that the acoustic velocity of the Stoneley wave is decreased lower than that of a slow transverse wave propagating through the dielectric substance 3 and that of a slow transverse wave propagating through the piezoelectric substance 2, thereby forming a boundary acoustic wave device 1.